Issue Paper Number **99-042**

BOARD OF EQUALIZATION
KEY AGENCY ISSUE

- ☐ Board Meeting
- ☐ Business Taxes Committee
- ☐ Customer Services Committee
- ☐ Legislative Committee
- ☒ Property Tax Committee
- ☐ Technology & Administration Committee
- ☐ Other

BIOPHARMACEUTICAL INDUSTRY- INTERIM BUSINESS PROPERTY ASSESSMENT PRACTICE GUIDELINES

I. Issue

Should the Board adopt interim statewide standards for the biopharmaceutical industry pertaining to: (1) reporting categories, (2) service lives for each category, (3) use of an index factor to trend historical cost to replacement cost new, and (4) minimum percent good guidelines?

II. Staff Recommendation

Staff recommends that the Board adopt the reporting categories, service lives, valuation factor tables and minimum percent good guidelines illustrated in Attachment A.

III. Other Alternative(s) Considered

1. Adopt the reporting categories, service lives, valuation factor tables and minimum percent good guidelines as proposed by Genentech, Inc. (Attachment A)

2. Adopt the reporting categories, service lives, valuation factor tables and minimum percent good guidelines as proposed by the California Assessors' Association (CAA) Biopharmaceutical Ad Hoc Committee. (Attachment A)

IV. Background

Section 401.5 of the Revenue and Taxation Code requires that the Board shall issue to assessors data relating to costs of property and other information that will promote uniformity in appraisal practices and in assessed values throughout the state.

The Board complies with section 401.5 by issuing various Assessors' Handbooks and Letters to the Assessor (LTA). The Board specifically complies with section 401.5 for business personal property and fixtures by publishing Assessors' Handbook Section 581, *Equipment Index and Percent Good Factors*, on an annual basis. This handbook section contains several tables of equipment index factors and percent good factors for use in valuing personal property and fixtures.

In June of 1998, a number of letters were received from industry representatives requesting the Board to adopt a percent good table developed by Lane, Westly, Inc. for use in valuing laboratory, process, and production biopharmaceutical equipment. The Lane, Westly table was originally presented to the San Mateo County Assessment Appeals Board as evidence by Genentech, Inc. to support a reduction in assessed value.

As a result of these requests, the issue of whether or not to recommend this percent good table specifically for biopharmaceutical equipment was brought to the Property Tax Committee for consideration at its July 28, 1998 meeting. (See Issue Paper 98-022) Testimony was heard from industry representatives and county assessor representatives regarding assessment practices for biopharmaceutical industry property. At its July 30, 1998 meeting, the Board directed the Property Taxes Department to engage in discussions with the biopharmaceutical industry and county assessors to identify issues and develop interim valuation factors for the January 1, 1999 lien date.

Property Taxes Department staff has conducted an extensive investigation of county assessment practices in the eight counties where biopharmaceutical companies are located. The asset accounting records of two major biopharmaceutical companies were also reviewed. Additionally, the specialized improvements, machinery, and fixtures of those two biopharmaceutical companies were physically inspected. Information on the biopharmaceutical industry, including two reports prepared by consultants for companies in the industry, was also reviewed. The staff attempted to calculate service lives for biopharmaceutical industry property using the methodology outlined in the recently Board adopted Assessors' Handbook Section 504, *Assessment of Personal Property and Fixtures.* Unfortunately, evidence in the area of equipment retirement frequency and used equipment sales prices was ultimately determined (after extensive investigation and analysis) to be either unavailable or unreliable.

On January 26, 1999, a workshop on "Biopharmaceutical Industry Assessment Practices" was conducted by the Property Taxes Department staff in Sacramento. Both industry and county assessor representatives were present at the workshop. The objective of the workshop was to clearly define all issues and to arrive at a consensus for interim valuation factor tables and reporting categories. The only issue resolved, however, was the following working definition of "biopharmaceutical industry":

> "Firms engaged in research and/or manufacturing activities that use organisms or materials derived from organisms, and their cellular, subcellular and molecular components, in order to discover and/or provide products for human or animal therapeutics and diagnostics. Biopharmaceutical activities make use of living organisms to develop and/or produce commercial products, as opposed to conventional pharmaceutical activities that make use of chemical compounds to develop and/or

produce commercial products. Firms engaging in agriculture, animal husbandry, and pharmaceutical delivery in the area of research and/or manufacturing are specifically excluded."

This issue was originally rescheduled for Board consideration on February 23, 1999 (See Issue Paper 99-005); however, the item was removed from the Property Tax Committee Agenda. At its meeting on June 30, 1999 (See Issue Paper 99-005R), the Board decided that consideration of this issue should be deferred until September 1 so that a concerted effort could be made to arrive at a statewide consensus. On August 5, 1999 a workshop was held at the Board Headquarters to further discuss issues related to biopharmaceutical business property valuation. This discussion was chaired by the State Controller and covered (1) the agreed upon definition of "biopharmaceutical industry," (2) the major reporting categories, (3) selection of valuation factor tables and (4) establishment of minimum percent good guidelines. Although significant progress toward consensus was made, certain differences remained unresolved to the satisfaction of Genentech, Inc., the California Assessors' Association and San Mateo County.

V. Staff Recommendation

A. Description of the Staff Recommendation

Staff recommends that the Board adopt the reporting categories, average service lives, index factor trending and minimum percent good guidelines that were agreed to by Amgen, Inc. and the Ventura County Assessor. (See Attachment A) Each of the elements is described below:

Reporting Categories: Staff recommends the following reporting categories: 1) Lab Equipment; 2) Commercial Manufacturing Equipment; 3) Pilot Scale Manufacturing Equipment; and 4) Fixtures and Process Piping.

The number and composition of reporting categories should be governed by three constraints: property tax law, similar rates of depreciation among individual items, and taxpayer accounting systems. The four distinct reporting categories recommended by staff are designed to address these concerns. It is important to note that property tax law (Revenue and Taxation Code section 602) requires that improvement value be shown separately from the land value and personal property value on the assessment roll. Fixtures are a type of improvement, thus requiring valuation separate from the equipment that is personal property. Isolating and reporting costs of fixtures separately facilitates more accurate appraisals.

Average Service Lives: Staff recommends the following average service lives: 1) Lab Equipment - 6 years; Commercial Manufacturing Equipment – 10 years; Pilot Scale Manufacturing Equipment – 8 years; and Fixtures and Process Piping - 10 years.

Staff was unable to gather the evidence necessary to empirically calculate average service lives for biopharmaceutical business property. The studies submitted by industry used data that was either unreliable or inappropriate, thus preventing their use. Ultimately, the use of appraisal judgement was required to make this recommendation. Staff has physically toured several biopharmaceutical facilities in California and examined the property records filed in assessors' offices in 8 counties. Biopharmaceutical business property (as reflected in the reporting categories) has four unique depreciation rates. Such records disclosed that the commercial manufacturing equipment has the longest life, followed by pilot scale equipment, and then laboratory equipment. Fixtures likely have a life akin to commercial manufacturing equipment, so the same 10 year life is recommended.

Trending: Staff recommends trending for each of the four reporting categories.

An index factor is applied to reported historical cost in order to arrive at a replacement cost new. This is commonly referred to as "trending." Instruments used in the biopharmaceutical industry incur functional obsolescence (new instruments are more productive than older ones), but the new instruments are also more expensive. Therefore trending at a reasonable rate (AH 581, Group 3 Index Factor) is appropriate. The only industry the Property Taxes Department has observed in which increases in productivity are also accompanied by lower prices is the computer industry. This fact is reflected in the special computer valuation tables promulgated by the Board.

Minimum Percent Good: Staff recommends using trended 10 percent minimum percent good factors.

The use of arbitrary minimum percent good factors by county assessors is discouraged by the Property Taxes Department. When no supporting evidence has been gathered to document the minimum percent good factor chosen, Section 582 of the Assessors' Handbook, *The Explanation of the Derivation of Equipment Percent Good Factors*, provides the following guidance to assessors:

> "At the same time, arbitrary deviations from the tables without adequate evidence of deviations from the norm, such as minimum percent good adjustments, are not good appraisal practices. As survivors of an original group reach older age, there may be less reliability in percent good factors applicable to these items. When property items reach this latter stage of their life and the tables indicate very low or zero percent good factors for property that is still functioning, special consideration should be given in assigning percent good factors."

In this situation, staff relied on two pieces of evidence to support its recommendation. First, the Marshall and Stevens Personal Property Guide recommends a salvage value for chemical property of 6 percent. Since salvage property does not have utility, it makes sense that property still functioning and maintained would be somewhat more valuable. Secondly, discussions with a major reseller of biopharmaceutical equipment confirmed that this is a reasonable range for minimum percent good guidelines. The Ventura County study also noted "a great deal of evidence that scientific instruments have substantial long-term residual value. . . even instruments over 10 years old are commanding at least 10 percent of their original cost."

Staff believes that the agreement between Amgen, Inc. (the largest biopharmaceutical company in California) and the Ventura County Assessor is an appropriate model for statewide use. The determination of the four factors outlined above can only be made in two fashions: the analysis of verifiable and relevant evidence in the areas of retirement frequency and/or used equipment sales prices; or through good faith negotiations based on available information. Given the lack of empirical evidence, the latter was the only course available for Amgen and Ventura County. The Property Taxes Department staff believes that this agreement is consistent with its observations (as detailed above) during 13 months of investigation.

B. Pros of the Staff Recommendation

The staff recommendation will provide statewide interim guidelines to county assessors recognizing that the specialized business property of the biopharmaceutical industry incurs obsolescence at a unique rate. It will also reduce the probability of further litigation in this area before county Assessment Appeals Boards.

C. Cons of the Staff Recommendation

The staff recommendation does not provide the amount of obsolescence adjustment requested by Genentech, Inc. and other industry participants in their original petition to the Board in July of 1998. In the opinion of some Assessors, it provides an unwarranted amount of obsolescence adjustment. It also establishes a precedent for individual industries to petition the Board for a special study concerning obsolescence rates and/or special appraisal guidelines.

D. Statutory or Regulatory Change

None

E. Administrative Impact

None

F. Fiscal Impact

1. Cost Impact

None

2. Revenue Impact

See attached Revenue Estimate.

G. Taxpayer/Customer Impact

Adoption of the Amgen-Ventura County Assessor agreement as a statewide standard will reduce the property tax burden of the biopharmaceutical industry and recognize that the forces of obsolescence impact the specialized business property of this industry in a unique manner. Adoption of this should reduce the potential of further litigation before county Assessment Appeals Boards.

H. Critical Time Frames

None

VI. Alternative 1

A. Description of the Alternative

Genentech, Inc. recommends that the Board adopt the same four reporting categories as recommended by Board staff, but proposes that lab and pilot scale manufacturing fixtures be reported under the categories for lab equipment and pilot scale manufacturing equipment. They also deviate from the staff recommendation in the areas of average service lives, use of an index factor to trend historical cost to replacement cost new, and minimum percent good guidelines. These differences are identified in Attachment A and detailed in the discussion below:

Reporting Categories: Although Genentech agrees on the four classification categories, they support the idea that the fixtures used in the lab and pilot scale manufacturing settings should be apportioned to those classifications (i.e., the tables for lab and pilot scale manufacturing would contain both equipment and fixtures).

Genentech's justification lies in the very special purpose and use of these fixtures, resulting in very similar lives as the equipment itself. They believe that analyses performed by companies overwhelmingly validates this fact. Furthermore, it is their understanding that companies do not separate fixtures from equipment when booking purchases for labs or pilot scale manufacturing. Genentech believes, however, that the lives for lab and pilot scale manufacturing should be even shorter than those now offered as a compromise.

Average Service Lives: Genentech agrees with the recommended average service lives of 6 years for lab equipment, including fixtures as they propose, and 10 years for fixtures and process piping; however, they support lives of 8 years for commercial manufacturing equipment and 7 years for pilot scale manufacturing equipment and fixtures.

Pilot Scale Manufacturing: Due to the nature of the industry, Genentech states that a pilot plant is used for a maximum of 6 years in the process when a product is successful. They claim that, at best, an average of only 25% of the products entering the latter stages of clinical trials actually last long enough to make it to market. The company says that technological advances necessitate substantial if not entire make-over of pilot plants between products. Although it disagrees that an average life for this equipment is 8 years trended, Genentech is willing to accept 7 years untrended.

Commercial Manufacturing Equipment: Based upon the weight of the evidence that various companies have provided to Genentech, it offers a compromise of 8 years untrended. The company believes, however, that the evidence supports an untrended average service life of 6 years due to rapid technology changes, coupled with the manufacturing reality that new equipment is constantly installed to make the production of existing products more efficient.

Trending: Genentech recommends that the index factors *not* be trended for purposes of estimating replacement cost new.

Genentech states that trending is appropriate when the natural occurrences of a market cause replacement prices for the same piece of equipment to increase over time. However, the company submits that such increases do not occur when technological advances actually drive costs down, as in the computer industry and, similarly, in the biopharmaceutical industry. Given the constant advances in biotechnology discovery and manufacturing methods, Genentech's position is that constant advances in biopharmaceutical discovery and manufacturing methods cause enormous obsolescence of existing lab and manufacturing equipment. They point out that obsolescence in the computer industry resulted in downward trending in the special tables adopted by the Board for that industry. Although Genentech believes the tables adopted should not be trended upwards, they are willing to compromise and accept untrended tables.

Minimum Percent Good: Genentech supports *untrended* 10 percent minimum percent good factors.

Genentech notes that substantial disagreement remains over what minimum percent good ought to be reflected in the tables. The company disagrees with the assessors' opinion that the residual value of this equipment is well above ten percent. According to Genentech, however, industry has shown that standard Board methodology should also apply to tables for the biopharmaceutical industry that would result in residual values well below ten percent. Amgen has provided substantial arguments in offering a compromise of each table declining to a minimum of ten percent good. As a result, Genentech would support this conclusion, but does not believe the minimums should be trended.

B. Pros of the Alternative

- The reporting categories recommended by Genentech would conform to their accounting system, which is set up to group assets by building/project. As currently structured, the records combine lab equipment and fixtures and pilot scale manufacturing equipment and fixtures.

C. Cons of the Alternative

- Reporting lab and pilot scale manufacturing fixtures in equipment classification categories, as Genentech proposes, combines property types that typically have different average service lives. Generally, fixtures have a longer average service life than equipment. Any deviation from these categories agreed to by the others would require that each of the parties provide new estimated average service lives for the various categories in order to account for composite equipment and fixture categories. Without adjusting average economic service lives, combining these different property types for reporting purposes results in less accurate assessed values.
- As noted earlier, section 602 of the Revenue and Taxation Code requires that improvements, including fixtures, be shown separately from the land value and personal property value on the assessment roll.
- Property Taxes Department staff has not verified the studies and analyses referenced as supporting Genentech's positions.

D. Statutory or Regulatory Change

None

E. Administrative Impact

None

F. Fiscal Impact

1. Cost Impact

None

2. Revenue Impact

See attached Revenue Estimate.

G. Taxpayer/Customer Impact

It is unlikely that county assessors would follow Genentech's recommendations if they were to be adopted by the Board, without further verification from the entire industry. Therefore, a continued number of assessment appeals would result. Depending on the decisions made at these hearings, the issue would likely result in court actions.

H. Critical Time Frames

None

VII. Alternative 2

A. Description of the Alternative

The CAA Biopharmaceutical Ad Hoc Committee recommendation is the same as the staff recommendation, except for the issue of adopting minimum percent good factors. Instead, the CAA ad hoc committee recommends that the Board allow the counties discretion in this area.

The CAA ad hoc committee feels that minimum percent good factors should be left up to each individual county based upon its experience in the local marketplace. Minimums should be set by each county based on the composite of fixtures and equipment owned by each company, to account for the unique situations of individual taxpayers. Ventura County's conclusions regarding Amgen fit under this reasoning, as conclusions drawn for an individual taxpayer, based on Ventura County's study of the company.

The ad hoc committee suggests that a minimum percent good of 10 percent would not be appropriate in San Mateo County, for example, where Genentech is making products in the same facilities and with much of the same equipment, which it has been using since 1985. In a submission from San Mateo County representatives, they estimate that 11 percent of Genentech's production equipment and 19 percent of its fixtures are more than ten years old (the economic life suggested by Board staff); and 40 percent of lab equipment is older than the suggested economic life of six years. They believe that it is not reasonable to conclude that such a significant part of the company's assets would have a value of only 10 percent of cost. From an appraisal standpoint, it is unlikely, in their opinion, that equipment which costs so much to install, and is housed in such expensive quarters, would be worth as little as 10 percent of cost after only six to ten years.

San Mateo County assesses other industries using minimums in the 18-25 percent range. Also, San Mateo County, along with other counties, recently settled longstanding litigation with the airline industry, whereby the airlines agreed to a market-derived minimum value of greater than 20 percent. According to San Mateo County representatives, a federal statute prohibits assessing airline property at a higher ratio to market value than other industries. San Mateo County feels that they cannot make an exception for the biopharmaceutical industry without legally sufficient justification. Otherwise, the County is of the opinion that they will be vulnerable to a federal lawsuit by the airlines claiming discriminatory treatment.

B. Pros of the Alternative

Allowing county discretion on establishing minimum percent good factors provides the assessor an opportunity to work with his or her taxpayers to determine documented minimums.

C. Cons of the Alternative

The absence of uniform minimum percent good factors will lead to county by county variances that detract from uniform statewide assessment practice guidelines.

D. Statutory or Regulatory Change

None

E. Administrative Impact

None

F. Fiscal Impact

1. Cost Impact

None

2. Revenue Impact

See attached Revenue Estimate.

G. Taxpayer/Customer Impact

Taxpayers would likely file assessment appeals if they feel that the minimum percent good factors used by the county assessor were too high. Also, if a company is situated in more than one county, they may experience different minimum percent good factors being applied on likekind property.

H. Critical Time Frames

None

Prepared by: Property Taxes Department; Policy, Planning, and Standards Division

Current as of: August 17, 1999

Attachment A

ISSUE MATRIX FOR BIOPHARMACEUTICAL INDUSTRY
INTERIM BUSINESS PROPERTY ASSESSMENT PRACTICE GUIDELINES

	Reporting Categories[1]	Average Service Lives[2]	Trended/ Untrended[3]	Minimum Percent Good
Board Staff/ Amgen, Inc./ Ventura County Assessor	Lab Equipment	6 Years	Trended	10% Trended
	Commercial Manufacturing Equipment	10 Years	"	"
	Pilot Scale Manufacturing Equipment	8 Years	"	"
	Fixtures and Process Piping	10 Years	"	"
Genentech, Inc.	Lab Equipment	6 Years	Untrended	10% Untrended
	Commercial Manufacturing Equipment	8 Years[4]	"	"
	Pilot Scale Manufacturing Equipment	7 Years	"	"
	Fixtures and Process Piping	10 Years	"	"
CAA Biopharmaceutical Ad Hoc Committee	Lab Equipment	6 Years	Trended	County Discretion
	Commercial Manufacturing Equipment	10 Years	"	"
	Pilot Scale Manufacturing Equipment	8 Years	"	"
	Fixtures and Process Piping	10 Years	"	"

[1] Each of the proposals, with the exception of Genentech's, recommends reporting and/or allocating fixtures for reporting purposes to Schedule B-2 (Fixtures) of Form 571-L. Genentech proposes that lab and pilot scale manufacturing fixtures be reported together with lab and pilot scale manufacturing equipment on Schedule A (Equipment) of Form 571-L.

[2] **Average service life refers to the corresponding percent good table as illustrated in Table 4 of the AH 581 (*Equipment Index and Percent Good Factors, January 1999*). This factor is applied to Replacement Cost New (RCN) to arrive at FMV.**

[3] **Trending refers to the application of the Group 3 Index Factor as illustrated in Table 2 of the AH 581 (*Equipment Index and Percent Good Factors, January 1999*). The product of the historical cost reported for that year and the index factor is the RCN.**

[4] Shaded items reflect differences from the staff recommendation.